

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF MISSISSIPPI
EASTERN DIVISION

PERCY WHITFIELD; et al.

PLAINTIFFS

vs.

**Lead Case No. 1:03CV287-D-D
CONSOLIDATED**

TRONOX WORLDWIDE LLC; et al.

DEFENDANTS

OPINION DENYING MOTIONS TO EXCLUDE EXPERT TESTIMONY

Presently before the court are the Defendants Tronox LLC and Tronox Worldwide LLC's motions to exclude the testimony of the Plaintiffs' experts Dr. Pamela Anderson-Mahoney and Dr. Patricia Williams, motion to exclude the Plaintiffs' statistical analysis, and motions to strike errata sheet corrections and untimely affidavits. Upon due consideration, the court finds that the motions to exclude testimony and motion to strike statistical analysis should be denied, the motion to strike errata sheet corrections should be granted as to Berenice Dixon's corrections and denied as to Dr. Pamela Anderson-Mahoney's corrections, and the motion to strike untimely affidavits from Dr. Patricia Williams should be granted.

A. Factual Background

The Plaintiffs in this environmental tort action are individuals who either own property in close proximity to a now-closed wood processing plant in Columbus, Mississippi, or who have resided near the plant during their lifetimes. The plant, which began operation decades ago, occupies ninety acres in the city of Columbus. The plant treated wood for railroads, including wooden crossties and switch ties, using a preservative called creosote. The land surrounding the plant's location is mixed residential and industrial.

Coal tar creosote, the type that was used at the facility, is an oily, liquid substance that is

produced as a by-product of the distillation of coal tar and is a widely used wood treating preservative. At the Columbus plant, the Defendants treated wood with creosote by placing the wood into a pressurized cylinder and injecting creosote into the wood. The Plaintiffs allege that this process has contaminated the groundwater in the area and has released vapors, mists and dust into the community, causing the Plaintiffs to suffer adverse health effects as well as damage to their real and personal property.

The first trial, with two plaintiffs (Berenice Dixon for personal injury and William Sanders for property damage), in this series of related cases is set for trial on November 5, 2007. On June 18, 2007, the court held two days of hearings concerning the Defendants' pending Daubert motions regarding the expert testimony of Dr. Pamela Anderson-Mahoney and Dr. Patricia Williams. The testimony focused largely on the Plaintiffs' personal injury claims, in particular breast cancer, which relates to the claims of the Plaintiff Berenice Dixon, who is a 52 year old Columbus, Mississippi, resident and has lived her entire life approximately ½ mile to the west of the Defendants' facility.

B. Standard for Daubert Motions

Rule 702 of the Federal Rules of Evidence deals with the admissibility of testimony by expert witnesses. It was amended in December of 2000 and provides that:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

Fed. R. Evid. 702 (2000).

Procedurally, the admissibility of expert testimony under Rule 702 is governed by Rule

104(a). Moore v. Ashland Chemical, Inc., 151 F.3d 269, 276 (5th Cir. 1998). Pursuant to Rule 104, the court conducts preliminary fact-finding and makes an initial assessment of whether the reasoning or methodology underlying the testimony is scientifically valid and whether that reasoning or methodology can be applied to the facts at issue. Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 113 S.Ct. 2786, 125 L. Ed. 2d 469 (1993); Moore, 151 F.3d at 276.

During a Rule 104 hearing, the party seeking to have the court admit the expert's testimony must first submit sufficient proof to assure the court that the proffered expert is qualified to testify by virtue of her knowledge, skill, experience, training, or education. Wilson v. Woods, 163 F.3d 935, 937 (5th Cir. 1999). The proponent must then demonstrate to the court that the expert's findings and conclusions are based on the scientific method, and are therefore reliable. Moore, 151 F.3d at 276. The proponent need not prove to the court that the expert's testimony is correct, but they must prove by a preponderance of the evidence that the testimony is sufficiently reliable. Moore, 151 F.3d at 276; see Curtis v. M&S Petroleum, Inc., 174 F.3d 661, 668 (5th Cir. 1999) (holding that in order to be admissible, proffered expert testimony "must be grounded in the methods and procedures of [the relevant discipline] and must be more than unsupported speculation or subjective belief."); Black v. Food Lion, Inc., 171 F.3d 308, 313 (5th Cir. 1999) (excluding testimony that "include[d] conjecture, not deduction from scientifically-validated information."); Watkins v. Telsmith, Inc., 121 F.3d 984, 990 (5th Cir. 1997).

In Daubert, the Supreme Court set forth the following non-exclusive flexible checklist that courts may utilize, when doing so will help assess the reliability of expert testimony:

- (1) whether the expert's technique or theory can be, or has been, tested;
- (2) whether the technique or theory has been subject to peer review and publication;

- (3) the known or potential rate of error of the technique or theory when applied;
- (4) the existence and maintenance of standards and controls; and
- (5) whether the technique or theory has been generally accepted in the scientific community.

Daubert, 509 U.S. at 592-94; see Kumho Tire Co. v. Carmichael, 526 U.S. 137, 149-50, 119 S.Ct. 1167, 1175, 143 L. Ed. 2d 238 (1999) (holding that Daubert factors do not constitute a definitive checklist or test, but rather are guidelines that court may utilize in determining reliability of expert testimony). In short:

The objective of [Daubert's reliability] requirement is to ensure the reliability and relevance of expert testimony. It is to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.

Kumho Tire, 526 U.S. at 152.

C. Discussion

1. Motion to Exclude Testimony of Epidemiologist Dr. Pamela Anderson-Mahoney

Dr. Pamela Anderson-Mahoney is an epidemiologist retained as an expert witness by the Plaintiffs. Dr. Anderson-Mahoney holds an M.S. from the University of California at Los Angeles (U.C.L.A.) in public health and epidemiology, and a Ph.D from U.C.L.A. in public health epidemiology with a focus on epidemiology. In her proffered testimony, she opines that creosote released from the Defendants' Columbus facility caused or exacerbated the Plaintiff's alleged injuries. The Defendants do not directly challenge Dr. Anderson-Mahoney's qualifications as an expert in epidemiology.

Dr. Anderson-Mahoney's report concludes that the Plaintiffs' personal injuries (including the breast cancer suffered by the first trial Plaintiff, Berenice Dixon) were, to a reasonable degree

of scientific certainty, caused or exacerbated by the Plaintiffs' exposure to creosote from the Defendants' facility. In so concluding, her report references previous studies indicating that women exposed to creosote (and certainly, to the known toxins and carcinogens, known as polycyclic aromatic hydrocarbons [PAHs], benzene and dioxin, contained within creosote) have higher rates of breast cancer. See, e.g., Agency for Toxic Substances and Disease Registry: Toxicological Profile for Wood Creosote, Coal Tar Creosote, Coal Tar, Coal Tar Pitch, and Coal Tar Pitch Volatiles (2002); International Agency for Research on Cancer: Coal Tars and Derived Products: Summary of Data Reported and Evaluation (2005).

By way of background, courts generally consider epidemiological studies to be the best evidence in determining whether a toxin or agent can cause and did cause a given disease in a specific plaintiff. Allen v. Pennsylvania Eng'g Corp., 102 F.3d 194, 196 (5th Cir. 1996). This is true even though epidemiology is concerned with the incidence of disease in a given population and does not in and of itself address the question of the cause of an individual's disease. DeLuca v. Merrell Dow, 911 F.2d 941, 945 (3rd Cir. 1990) (holding that “[e]pidemiological studies do not provide direct evidence that a particular plaintiff was injured by exposure to a substance.”). It is important to note that epidemiology itself “cannot objectively prove causation; rather, causation is a judgment for epidemiologists and others interpreting the epidemiologic data.” Reference Manual on Scientific Evidence at 375 (Federal Judicial Center 2000). In addition, courts should consider additional factors, known as the Bradford-Hill factors, in determining whether epidemiological opinions qualify for admission under Daubert. These factors include whether a temporal relationship exists between the subject exposure and the disease; the strength of the association; the dose-response relationship; replication of the findings; biological plausibility; consideration of alternative explanations;

cessation of exposure; specificity of the association; and consistency with other knowledge. Id. at 375.

The Defendants move to exclude Dr. Anderson-Mahoney's expert testimony pursuant to Rules 702 and 703 of the Federal Rules of Evidence on the following grounds: that the testimony is based on unreliable data, that the testimony itself is unreliable, and that her methodology is flawed.

The Defendants assert that Dr. Anderson-Mahoney's conclusions are unreliable and flawed, *inter alia*, because those conclusions are based on faulty data and that the comparison group was selected in an arbitrary fashion. The court finds, however, that the data was based on questionnaires devised by another expert, Dr. Patricia Williams (a toxicologist), and that the comparison group was properly adjusted for age, gender, race, and the types of questions asked. The cases cited by the Defendants on this point (In re TMI Litigation, 193 F.3d 613 (3rd Cir. 1999) and In re Silica Products Liability Litigation, 398 F. Supp. 2d 563 (S.D. Tex. 2005)) are distinguishable from the case *sub judice* in that the subject questionnaires in those cases were filled out by attorneys, whereas each plaintiff in this case either personally filled out their own questionnaire, or, in the case of minor Plaintiffs, with assistance from adult family members. Dr. Anderson-Mahoney's report discusses this issue, at pp. 76-77, and cites a study conducted by the Agency for Toxic Substance and Disease Registry in support of her conclusion that the data is valid.

The Defendants also assert that Dr. Anderson-Mahoney failed to adequately review scientific literature related to the issues in this case. It appears, however, that her review of the relevant literature was extensive. She cites numerous studies and government data for her findings, even finding that certain illnesses and cancers (although not breast cancer) were not present in statistically significant higher numbers as a result of creosote exposure. In addition, as is the case with Dr.

Williams and the Defendants' challenge of her interpretation of the relevant literature, the court finds with respect to Dr. Anderson-Mahoney that the difference of opinion as to how to properly interpret the literature is an argument best preserved for presentation to a jury. It does not impact the reliability of her testimony to a sufficient degree so as to render the testimony unreliable under Daubert and its progeny.

In addition, as noted above, the Defendants seem to be attempting to place too high a burden on Dr. Anderson-Mahoney by placing on her shoulders a responsibility that goes beyond the limits of her testimony and area of expertise. Her testimony is simply concerned with the reported health problems of the Plaintiffs and whether creosote caused or exacerbated those problems; it does not seek to establish general causation as to any other population groups regarding creosote exposure.

Because it appears that Dr. Anderson-Mahoney is qualified to testify in the area in which she has been designated, that her testimony will be relevant, that her methods were sufficiently reliable, and that she consulted the relevant literature regarding associations between illness and the chemicals and chemical constituents at issue, the Defendants' arguments appear to be more appropriately the subject of cross-examination, and not require exclusion of Dr. Anderson-Mahoney's testimony at this time. See Daubert, 509 U.S. at 595 ("Vigorous cross-examination, presentation of contrary evidence and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence."); Slaughter v. Southern Talc Co., 919 F.2d 304, 306 (5th Cir. 1990) (holding that "[a]s a general rule, questions regarding the bases of an expert's opinion 'affect the weight to be assigned that opinion rather than its admissibility and should be left for the jury's consideration.'" (quoting Viterbo v. Dow Chemical Co., 826 F.2d 420, 422 (5th Cir. 1987))). Dr. Anderson-Mahoney sorted the subject population, reviewed the

relevant literature and data, compared her findings to a control group, and found that (referencing Berenice Dixon's claims) the incidence of breast cancer in those women exposed to creosote is statistically higher than expected. Given this, plus her live testimony during the hearing, the court finds that her expected testimony meets the standards for admission at trial pursuant to Daubert.

2. Motion to Exclude Testimony of Toxicologist Dr. Patricia Williams

Dr. Patricia Williams is a toxicologist retained by the Plaintiffs. Dr. Williams holds a B.S. in Medical Technology and an M.S. in Microbiology from Louisiana State University, and a Ph.D in anatomy with a minor in biochemistry from Tulane. She is a board-certified toxicologist. She serves as a tenured Professor of Toxicology at the University of New Orleans and also serves as the Coordinator for Toxicology Research Laboratories of the Pontchartrain Institute for Environmental Sciences. She was previously a Professor of Medicine at the Louisiana State University Medical School in Shreveport and was the Director of the Occupational Toxicology Outreach Program at that institution.

In her testimony, Dr. Williams opines that creosote released from the Defendants' Columbus facility caused or exacerbated the Plaintiffs' alleged injuries. The Defendants do not challenge Dr. Williams' qualifications as an expert in toxicology. The Defendants do, however, move to exclude Williams' expert testimony pursuant to Rules 702 and 403 of the Federal Rules of Evidence on the ground that her testimony is unreliable and overly prejudicial. The Defendants also move, in a separate motion, to strike the two affidavits Williams submitted as exhibits to the Plaintiffs' response to this Daubert motion.

First, the Defendants move to exclude Williams' expert testimony pursuant to Rule 702 on the ground that the testimony is unreliable. Specifically, the Defendants assert that Dr. Williams has

not reliably established that the Plaintiff Berenice Dixon (the first trial Plaintiff) was exposed to a high enough level of creosote to cause breast cancer; that Williams' methodology is unreliable; and that Williams' analysis does not support her causation conclusion. Dr. Jonathan Borak was the Defendants' expert who presented testimony at the hearing in opposition to Dr. Williams. At the outset, the court notes that Dr. Borak admitted that reasonable and qualified toxicologists can differ as to methodologies and the parameters of studies.

In response to the Defendants' motion, the Plaintiffs assert that the Defendants' own data concerning soil and air testing for creosote confirms Williams' view that the Plaintiff Dixon was exposed to a sufficiently high level of creosote to cause breast cancer. In addition, while the Defendants challenged Dr. Williams' use of air modeling data that was compiled by the Plaintiffs' expert air modeler (Dr. David Mitchell), the Defendants have not directly challenged Dr. Mitchell's testimony nor the results of his air modeling. The Plaintiffs also assert that the methodology employed by Williams in this case has been approved by four of the FJC's reference guides (which are contained in the *Reference Manual on Scientific Evidence*): those on Toxicology, Epidemiology, Medical Testimony, and Statistics.

Finally, the Defendants question (indeed, the main focus of their post-trial hearing brief is on this point) whether the correct prevalence rate for breast cancer utilized by Dr. Williams during her testimony is 79.3/10,000 or 151.5/10,000. While there was some conflicting testimony presented during the hearing on this point, the court finds that the Defendant's argument is more appropriately the subject of cross-examination, and does not render Dr. William's analysis or testimony unreliable or invalid. The Defendants also question a small part of the scientific literature relied upon by Dr. Williams in forming her opinions. Dr. Williams cites nearly 180 sources in her report; Dr. Borak

criticized seven of them in his testimony. The court finds that this issue as well is one for the jury to weigh.

Overall, at this juncture, it appears that the Defendants' motion as to Dr. Williams' testimony should be denied. Much of what the Defendants argue in their motion seems to be better-suited for cross-examination of Dr. Williams. She is clearly and indisputably well-qualified, and her extensive and detailed report appears at this juncture to be based on reliable scientific methodology, at least sufficiently to withstand the Defendants' present Daubert challenge. In the report, she states her methodology and the basis for her opinions, all of which appear to be reliable at this juncture. Dr. Williams testified at length during the hearing concerning the strength of association between exposure to dioxins such as those contained in creosote and breast cancer. She also clearly considered and testified regarding several confounders, including birth control pills and another nearby industrial facility. Thus, the court finds that the Defendants' motion challenging Dr. Williams' testimony should be denied. Because the Defendants have retained experts who dispute Dr. Williams' findings, we appear to have a classic "battle of the experts" where the jury will decide which witness' testimony is more credible.

3. Related Motions

As for the Defendants' motion to strike, the Plaintiffs submitted two affidavits from Dr. Williams in conjunction with their response to the Defendants' Daubert motion concerning Dr. Williams. The court finds that the Defendants' motion to strike these untimely affidavits should be granted. The Plaintiffs admit that the affidavits are untimely, and in any event, they do not greatly supplement the Plaintiffs' response nor do they present any new information or opinions. Much of what is contained in the affidavits is repetitive and covers the same areas that Dr. Williams testified

about at the hearing on the Defendants' Daubert motion, namely defending her research methods, and stating that the data and tests are valid. Thus, in accordance with Rule 26.1(A) of the Uniform Local Rules, Rules 26(a)(2) and 26(e) of the Federal Rules of Civil Procedure and the Fifth Circuit's decision in Barrett v. Atlantic Richfield Co., 95 F.3d 375, 379-82 (5th Cir. 1996) (regarding the standard to be employed before parties may supplement expert testimony, which the Plaintiffs in the case *sub judice* have not attempted to meet), the Defendants' motion to strike the two subject affidavits is granted.

As for the Defendants' motion to strike errata sheet corrections, the court finds that the proposed corrections by Berenice Dixon to her deposition testimony should be stricken. Rule 30(e) of the Federal Rules of Civil Procedure provide a deponent with 30 days to make changes in the form or substance of his or her testimony. Dixon, however, did not submit her proposed changes (and there are two: one concerning her ingestion of eggs and another concerning her ingestion of meat from hogs) until more than 60 days had passed from the date a copy of her deposition testimony was provided to her attorneys. Thus, the court finds that these errata sheet corrections should be stricken. See Reed v. Hernandez, 114 Fed. Appx. 609, 611 (5th Cir. 2004) (affirming exclusion of proposed errata sheets from evidence based on failure to comply with 30-day time limit and stating "Rule 30(e) does not provide any exceptions to its requirements."). Dr. Anderson-Mahoney's errata sheet corrections, however, were filed in a timely manner and otherwise comply with Rule 30(e)'s requirements. Thus, the Defendants' motion to strike her errata sheet corrections is denied.

4. Motion to Exclude the Plaintiffs' Statistical Analysis

Lastly, the Defendants move the court to exclude the statistical analysis requested by Dr. Patricia Williams and performed by Dr. Tumulesh Solanky, a Professor of Mathematics at the

University of New Orleans, who hold a Ph.D in Statistics from the University of Connecticut. He has not been separately designated as an expert witness to provide testimony in this matter, although he has been so designated in prior federal creosote cases and has survived Daubert challenges to his proffered testimony (See, e.g., Avance v. Kerr-McGee, No. 5:04CV209, 2006 WL 4108469, at *4-5 (E.D. Tex. Nov. 30, 2006)).

The subject statistical analysis was performed on behalf of Dr. Patricia Williams, the Plaintiffs' toxicologist, and consists of medical health data from the population residing within a two-mile radius of the Defendants' Columbus facility (the "exposed" group) compared with the medical health data of a control or comparison population (the "control" group). Dr. Solanky analyzed the subject data and determined that people living within two miles of the Defendants' facility have a higher relative risk of breast cancer. Dr. Williams then incorporated these statistical results and analysis into her November 2006 expert report.

The Defendants do not challenge Dr. Solanky's qualifications or his calculations, but they do assert that the data he was given to analyze is suspect and unreliable. The court finds, however, that the data Solanky analyzed was verified and came from two sources: the exposed group data was taken from medical records and from an environmental health survey performed in the subject area; the control group data was taken from the National United States Health Interview Survey.

The Defendants also assert that the comparison groups have not been established as sufficiently similar to control for factors such as age and race, and that selection bias may have taken place. The court finds that the subject data surveys do indeed control for factors such as age and race, that other federal courts have accepted similar surveys in creosote litigation, and that the survey complies with the standards set forth in the FJC's *Reference Manual on Scientific Evidence*. The

data from the exposed group was then compared to data collected in a National Health Interview Survey, which has been peer-reviewed and published in the *Journal of the National Cancer Institute*, among other scientific publications. As for sampling or selection bias, the court finds that the study was conducted in accordance with the FJC's *Reference Manual on Scientific Evidence* and was tested for sampling bias in accordance with accepted scientific methodology.

In sum, the court finds that the subject analysis was properly conducted and based on appropriate and scientifically valid and reliable data. For these reasons, the Defendants' motion to exclude the statistical analysis is denied.

D. Conclusion

In conclusion, the court holds that the Defendants Tronox LLC and Tronox Worldwide LLC's motions to exclude the testimony of the Plaintiffs' experts Dr. Pamela Anderson-Mahoney and Dr. Patricia Williams are denied, and those expert witnesses shall be permitted to testify at the trial of this matter and to offer their opinions to the jury. The court further holds that the motion to exclude the Plaintiffs' statistical analysis is denied. Finally, the motion to strike errata sheet corrections is granted as to Berenice Dixon's corrections and denied as to Dr. Pamela Anderson-Mahoney's corrections, and the motion to strike untimely affidavits from Dr. Patricia Williams is granted.

A separate order in accordance with this opinion shall issue this day.

This the 23rd day of July 2007.

/s/ Glen H. Davidson
Senior Judge